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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,243	03/17/2004	Masayoshi Aoshima	09792909-5830	5252

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EXAMINER

LE, THIEN MINH

ART UNIT PAPER NUMBER

2876

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/802,243

Applicant(s)

AOSHIMA ET AL.

Examiner

Thien M. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-25 is/are allowed.
- 6) ☒ Claim(s) 1-5, 13, 14 and 26 is/are rejected.
- 7) ☒ Claim(s) 6-12 and 15-17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

The priority document filed on 3/17/2004 has been entered. Claims 1-26 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida et al. (Yoshida et al. – 2002/0136254 A1; herein after referred as “Yoshida”).

Regarding claims 1, 13 and 26, Yoshida discloses a “semiconductor laser device and module for use in a dense wavelength division multiplexed optical communications system are shown. The laser device preferably has cavity lengths greater than 1000 .mu.m, and compressive strain multi-quantum well active layer, and front-facet reflectivity of less than about 4%. Higher optical outputs by longer cavity lengths are achieved. Preferred modules use these laser diodes with external wavelength-selective reflectors that have narrow bandwidths of 3 nm or less, and which include a plurality of longitudinal mode subpeaks within the bandwidth. Relationships between reflectivity value of the front facet and the peak reflectivity of the wavelength-selective reflector for long cavity length laser device are also disclosed, with the relationships providing higher output power along with a stabilized output spectrum.” (abstract)

Accordingly, Yoshida discloses laser module (figure 5) comprising: a resonator, a laser diode 210, wavelength selective reflectors $3_{\text{sub}1} - 3_{\text{sub}4}$, a lens 262^{cap 52} which is considered as a window cap. As can be seen, Yoshida discloses the claimed invention.

Regarding claims 2 and 14, see the discussions regarding claim 1. Yoshida shows the use of a heat sink in a semiconductor laser module (see figure 5).

Regarding claims 3 and 5, the fiber holder and lens 262 are shown to keep the device air-tight (figure 5).

Regarding claim 4, see the discussions above. Yoshida discloses the use of wavelength selective reflectors $3_{\text{sub}1} - 3_{\text{sub}4}$. Further, Yoshida discloses that multilayer

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filters or filters can be used to accomplish the wavelength selecting functions (see paragraph 119).

Allowable Subject Matter

Claims 18-25 are allowed.

Claim 6-12, 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose an optical laser module comprising a laser diode, pair of reflectors, resonator, wavelength selecting filter, a split reflector, and a received photodetector as recited in claim 6.

The prior art also fail to disclose a laser emitting module having the limitations of claim 1 and further comprising the specifics details of the window cap and a pair of convex/concave lens as recited collectively in 18, 20, and 25.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien M. Le whose telephone number is (571) 272-

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2396. The examiner can normally be reached on Monday - Friday from 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Le, Thien Minh
Primary Examiner
Art Unit 2876
May 24, 2005